

ZP508LTS06
P O W E R D I O D E

GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER
Features:

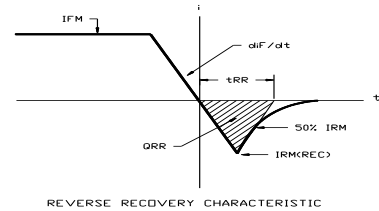
- . All Diffused Structure
- . High Surge rating
- . Blocking capability up to 600 volts
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device


ELECTRICAL CHARACTERISTICS AND RATINGS
Reverse Blocking

| Device Type | V _{RRM} (1) | V _{RSM} (1) |
|-------------|----------------------|----------------------|
| ZP508LTS06 | 600 | 650 |

V_{RRM} = Repetitive peak reverse voltage

V_{RSM} = Non repetitive peak reverse voltage (2)



Notes:

All ratings are specified for T_j=25 °C unless otherwise stated.

- (1) All voltage ratings are specified for an applied 50Hz/60zHz sinusoidal waveform over the temperature range -40 to +190 °C.
- (2) 10 msec. max. pulse width
- (3) Maximum value for T_j = 190°C.
- (4) See parameter definition below :

| | | |
|---------------------------------|------------------|-----------|
| Repetitive peak reverse leakage | I _{RRM} | 75 mA (3) |
|---------------------------------|------------------|-----------|

Conducting - on state

| Parameter | Symbol | Min. | Max. | Typ | Units | Conditions |
|---|--------------------|------|-------|-----|-------|---|
| Average value of on-state current | I _{F(AV)} | | 6000 | | A | Sinewave, 180° conduction, T _{sink} =55 °C |
| Peak one cycle surge (non repetitive) current | I _{FSM} | | 55000 | | A | 10.0 msec, V _R <60% V _{RRM} T _{vj} max |
| Peak on-state voltage | V _{FM} | | 1.10 | | V | I _{FM} = 4500A; T _j = 190 °C |
| Forward conduction threshold | V _O | | 0.826 | | V | T _j = 190 °C |
| Forward conduction slope | r | | 0.052 | | m Ω | T _j = 190 °C |

* For guaranteed maximum values, contact factory

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| Parameter | Symbol | Min. | Max. | Typ. | Units | Conditions |
|---------------------------------------|----------------------|------|-------|------|-------|--------------------|
| Operating temperature | T _j | -40 | +190 | | °C | |
| Storage temperature | T _{stg} | -40 | +190 | | °C | |
| Thermal resistance - junction to sink | R _{θ(j-hs)} | | 0.015 | | °C/W | Double side cooled |
| Mounting force | P | 19 | 26 | | kN | |
| Weight | W | | | 140 | g | |

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS

